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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,141	07/25/2001	Eugene B. Hogenauer	QST-012US/1924P	8230

7590 03/30/2004  
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EXAMINER

KIM, KENNETH S

ART UNIT PAPER NUMBER

2111

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DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/916,141

Applicant(s)

HOGENAUER, EUGENE B.

Examiner

Kenneth S KIM

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

KENNETH S. KIM  
PRIMARY EXAMINER

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. Claims 1-24 are presented for examination.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Drabenstott et al, U.S. Patent No. 6,366,999.

Drabenstott et al teaches the invention as claimed in claim 1 including a system for digital signal processing within an adaptive computing engine, the system comprising:

- (a) a mini-matrix, the mini-matrix comprising a set of composite blocks, each composite block capable of executing a predetermined set of instructions (col. 1, line 35),
- (b) a sequencer for controlling the set of composite blocks and directing instruction along the set of composite blocks based on a data flow graph (col. 2, line 9; col. 5, line 48),

(c) a data network for transmitting data to and from the set of composite blocks and to the sequencer (col. 6, line 43),

(d) a status network for routing status word data resulting from instruction execution in the set of composite blocks (col. 2, line 15 and col. 14, line 6), and

further teaches as in claims 2-9,

(e) wherein each composite block is capable of executing atomic instructions, a set of n-bit instructions, asset of 16-bit instructions (conventional instructions) – claims 2, 3, and 4,

(f) wherein said composite block execute multiply-alu-shift instruction on data stored in register files coupled to multiplier-alu-shifter and output result to the data network (col. 8, line 32; col. 16, line 22) – claims 3, 5, and 6,

(g) wherein each composite block further comprises a status register file for storing status word routed independently of data (col. 14, line 5; col. 15, line 48) – claims 7 and 8,

(h) wherein the sequencer transmits instruction words subdivided into instruction field for parallel computation (col. 2, line 61; VLIW instruction contain plural sub-instructions for parallel execution in multiple units) – claim 9.

The method claims 10-18 and the system claims 19-24 are equivalently rejected based on the same reason.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Kadowaki taught a DSP device sequencing instructions to functional units.

Guarde taught a DSP with multiple computation units of multiplier-alu-shifter.

Langhammer taught a programmable logic device sequencing instructions to multiple functional units.

Chiarulli et al taught a condition code implementing multiple ALU parallel processor.

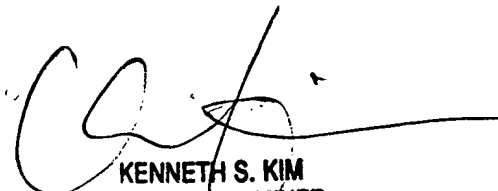
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth S KIM whose telephone number is (703) 305-9693. The examiner can normally be reached on M-F (8:30-17:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (703) 305-4815. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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March 19, 2004



KENNETH S. KIM  
PRIMARY EXAMINER